

II. REMARKS

A. Introduction

In this Office Action claims 1-41 are noted as pending and are rejected.

In summary of this Response, claims 6, 9, 11, 12 and 14, are amended, and remarks are provided.

Claims 6, 9, 11, 12 and 14 are amended herein like independent claims 1, 13, 15 and 16 to recite the coaxial movement of, e.g., the magnet relative to the coil(s).

B. Request for Acknowledgement of IDS

Applicant filed an IDS on February 4, 2005, copy attached, but the PTO Form 1449 attached thereto has not yet been initialed and returned, and same is respectfully requested.

C. Double Patenting Rejection

Claims 1-41 have been provisionally rejected on the ground of obviousness-type double patenting over claims 1-7 and 10-16 of co-pending U.S. Patent Application Serial No. 10/056,090.

In response, a Terminal Disclaimer for the Assignee is being submitted. Also attached is the appropriate \$130.00 disclaimer fee set by 37 C.F.R. § 1.20(d).

In light of the filing of this Terminal Disclaimer, it is respectfully submitted that this double-patenting rejection has been overcome.

D. Rejection of Claims 1-4, 13, 14, 33, 36 and 39  
Under 35 U.S.C. §103

These claims have been rejected as being made obvious by a combination of Kabushiki, Japanese Reference No. 7-299255 (the '255 reference) and Ishimoto, U.S. Patent No. 4,471,566. The Action relies particularly on passages found at page 20, second paragraph and page 21, first paragraph of the English translation of the '255 reference.

In response thereto, it is respectfully submitted that the present invention, as recited by

these amended claims, was neither anticipated nor rendered obvious by the cited prior art for the following reasons.

Initially, while the Action refers specifically to page 20, second paragraph, and page 21, first paragraph, but it is believed these passages support the conclusions about the teachings of the reference found at page 3, numbered paragraph 4, of the Action. All of page 20 and over to page 21, line 12 is irrelevant to the steering mechanism since it relates only to re-charging and to the differential effect sought to be accomplished by the rear axle arrangement shown in Fig. 2. On the other hand, page 21, lines 12-23 relate only to the neutral position of the steering with the coils de-energized, and not to the energization of the coils to effect wheel turning. Should this Response not be met with a Notice of Allowance, it is respectfully requested that the Examiner clarify the passages of the '255 reference upon which the rejection was made.

Nevertheless, the primary '299 reference is directed to an electromagnet steering mechanism structure including a pair of spaced coils 8 located on the front upper surface of the chassis 1. A ferromagnetic pin 9 is formed at a center of the front upper surface of the chassis (page 10, lines 18-19, page 13, lines 17-18, page 16, lines 9-11) between the two coils 8 (page 14, lines 12-15, page 16, lines 11-14). A permanent magnet 7 is provided in an attachment portion 61 (page 13, lines 16-17) of a separate coupling rod 6, all of which are spaced above the coils and the ferromagnetic pin 9. The magnet 7 is opposite the ferromagnetic pin 9 (Page 14, lines 15-17, page 16, lines 14-16). The attachment portion 61 projects in parallel to the chassis 1 with a predetermined space between it and the chassis 1 and it is integrally formed with the coupling rod 6. (Page 16, lines 5-8). See also the figures of the reference wherein the magnet 7 is above the pin 9 and the coils 8, and moves in a plane above them.

As noted above, each of the independent claims herein recite the coaxial movement of, e.g., the magnet relative to the coil(s). See, e.g., Figs. 8-12 of the present application. In the '255 reference, the movement of the electromagnetic members is not coaxial, but in different planes. The movement of the '255 reference's magnet 7 could not be coaxial of the coils because the pin 9 would prevent such movement. Removing the pin would undesirably rob the structure of its neutrality seeking feature and would be totally inconsistent with the teaching of the reference. Thus, not only does the '255 reference lack the structure of the presently recited invention, but it would not be obvious to modify the '255 reference to arrive at such structure.

Further, while the '255 reference purports to promote miniaturization, it fails to suggest the structure of the present invention which provides far greater miniaturization than is possible with the '255 reference, at least in the height direction of the toy vehicle. That is, with the

present invention's electromagnetic steering mechanism that moves coaxially, less height is required, relative to a vertically-spaced structure like that of the '255 reference, and yet the '255 reference nowhere suggests this possibility.

Thus, the issue under Graham v. John Deere is whether one of ordinary skill would be taught to compensate for the incomplete teaching of the '255 reference relative to the claims, based on Ishimoto. It is respectfully submitted that the answer is no.

Ishimoto shows a controlling element 18 which is pivotally connected to a toy chassis 10 via a shaft 20 at one end. The controlling element 18 has magnets 22, 24 attached to the other end thereof. An electromagnet 26 is fixed to the toy chassis 10. The controlling element 18 also has a protrusion 28 extending upwardly which is received in an aperture 30 formed in a "steering plate" 16 "thereby allowing the controlling element 18 to engage swingably in a horizontal plane with the steering plate 16". (Col. 2, lines 53-55). The steering plate 16 ties the left and right wheels 12 together via "rocking shaft bearings" 14.

Thus, in Ishimoto, there are two separate members, the pivoting controlling element 18 and the laterally movable steering plate 16, the former serving to receive one of the magnets or electromagnet, and the latter serving as a conventional tie rod between wheel turning members. It is the controlling element 18 which moves in a pendulum fashion because of electromagnetism, and then, through the loose connection between the protrusion 28 on the controlling element 18 and the aperture 30 on the tie rod 16, the tie rod 16 causes the wheels 12 to turn. The tie rod 16 does not include either of the magnet(s) 22, 24 or the electromagnet 26. Also, the movement of the magnets 22, 24 is pendular, not co-axial.

Relative to Ishimoto, the present inventors minimized the parts necessary for steering, minimized the space necessary to accommodate the structural elements, that is, allowed for greater compactness with the same or better function, and provided a more direct electromagnetic response since the movement is coaxial instead of pendular (in the latter regard the strength of the electromagnetism may change with the distance the magnet moves from the fixed electromagnet).

The Examiner suggests that Ishimoto's spring would be used with the connecting member of the '255 reference. In this regard, there is no support in the cited art as to why such a substitution would be made, since the '255 reference already has a neutrality seeking member, the pin 9 which necessarily cooperates with the magnet 7. While the Action fails to suggest how or where such a spring would be used, it is most logical that it would replace the pin 9. However, even if one were to consider using a spring to replace the pin 9 of the '255 reference, to which

Applicant disagrees, this structure would not lend itself to a coaxial arrangement because the spring would also interfere with same.

E. Rejection of Claims 15, 16, 21, 35, 38 and 40-41  
Under 35 U.S.C. § 103

These claims are rejected as being made obvious by the above-cited combination in view of Lesney ('490), which is cited for disclosing a suspension.

For the following reasons, it is respectfully submitted that the present invention, as recited by these amended claims, was not rendered obvious by the cited combination.

The above comments regarding the '255 reference/Ishimoto combination are expressly incorporated herein.

Further, prior to concluding that one of ordinary skill would use a suspension with the Ishimoto device, consideration must be made as to whether and why a suspension would be used. Ishimoto clearly includes no description of nor does it show the use of any suspension, as discussed in the February 4, 2005 Response. In summary thereof, where wheel turning members have no vertical play, such as appears to be the case with Ishimoto, there is no need for a suspension, as supported by Lesney's disclosure, as discussed previously. Even if the long leaf spring 18 of Lesney were used with the steering mechanism of Ishimoto, same would have no effect because the swivel blocks 5 do not appear to be movable. Thus, consideration would have to be made as to how to make the swivel blocks 5 move up and down, and not interfere with the steering mechanism.

Also, in order to incorporate the spring of Lesney 18 into Ishimoto, it must be asked how and why such a spring from a non-actuated steering mechanism (e.g., no motor/worm gear or electromagnetic function) would be used with a device which uses an actuated steering mechanism. In this regard, Lesney expressly indicates that "steering is effected solely by a child...urging the toy manually to the left or to the right ... while the manual pressure is maintained." (Page 4, left column, lines 14-32. See also column 2, lines 58-64). Neither Ishimoto nor Lesney offers guidance for adding a suspension to such an actuated steering mechanism, and the Office Action still fails to suggest a practical and "obvious" modification. More particularly, one would have to be taught how the Lesney spring could be incorporated in Ishimoto and still retain the electromagnetic link steering device thereof. It is not believed either Ishimoto or Lesney provides such a teaching, and the Office Action still fails to suggest an operable structure.

In light of the above, and contrary to the conclusion reached in the Office Action that one would have used "the suspension of Lesney with the running toy of Ishimoto for the purpose of providing better suspension qualities for the toy", it is believed the references themselves teach away from the combination.

III. CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that claims 1-41 are now in condition for allowance.

If there are any additional fees associated with this Response, please charge same to our Deposit Account No. 19-3935.

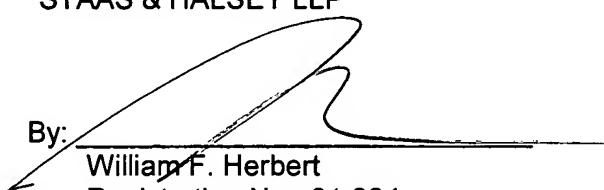
Finally, if there are any formal matters remaining after this Response, the undersigned would appreciate a telephone conference with the Examiner to attend to these matters.

Respectfully submitted,

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Date: 8/22/05

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